

IDAHO DEPARTMENT OF FISH & GAME

Joseph C. Greenley, Director

Grant No. 82084IDAC Project No. 1-126-R-2



Commercial Fish and Fish Feed Production
in Idaho

Period Covered: 1 October 1977 to 30 September 1978

by

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JOB PERFORMANCE REPORT

Grant No. 82084IDAC

State of: Idaho

Project No. 1-126-R-2

Title: Commercial Fish and Fish

Feed Production in Idaho

Period Covered: 1 October 1977 through 30 September 1978

ABSTRACT

The combined round weights of rainbow trout and channel catfish produced in Idaho in Calendar Year 1977 was 19,989,889 pounds. This represents a decrease of 1.03% in rainbow trout production and 46.7% increase in channel catfish production. The gross sales value of the combined production was \$25,164,559.

Fish feed production in Idaho during Calendar Year 1977 was 15,000 tons and had a gross sales value of \$6,300,000.

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RECOMMENDATIONS

Continue the annual survey of food fish processors and fish feed manufacturers in Idaho.

Expand the format to include fish hatchery equipment manufacturers in Idaho.

Expand the format to include fish hatchery engineering and construction firms in Idaho.

OBJECTIVES

1. To list food fish production in Idaho from the following aspects:
 - a. Total round weight of fish produced by species annually.
 - b. Total dollar value of round weight.
 - c. Weights of types of processed fish sold by food fish processors in Idaho.
 - d. Value of processed fish by size and type sold by food fish processors in Idaho.
2. To list fish feed production in Idaho from the following aspects:
 - a. Total weight of feed produced.
 - b. Value of feed produced.
 - c. Weights of types of fish feed produced.
 - d. Weight and type of fish meal used in fish feed production. PROCEDURE

A letter describing the project and the need for the data plus a copy of the questionnaire was sent to each food fish processor in Idaho (Appendix I). In addition, the same letter plus another questionnaire was sent to each fish feed manufacturer in Idaho.

During June, 1978, each individual was contacted personally to collect the requested data. Each visitation required an average of 3.2 hours contact time plus several call-backs by letter, visitation or telephone to clarify the data interpretation.

In general, the processors were reluctant to provide their individual production data directly but were willing to submit their respective data to an independent accounting firm in Twin Falls. The accounting firm of Evans, Condie and Cox then, after collating the data, sent it in.

RESULTS

Food Fish Production

This is the third year of food fish production data collection. In 1975, 18,371,890 pounds of rainbow trout were processed or sold alive (Table 1). In 1976, the production was 19,754,121 pounds (Table 2) and in 1977 the production had decreased to 19,549,889 pounds (Table 3). These represented annual increase of 7.1% in 1976 and 1.0% in 1977. The average price per pound round weight increased in 1977 to \$0.68 from \$0.63 in 1976, but still had not returned to the reported \$0.80 per pound in 1975. Also, there were significant increases in prices received for the various product types with the average increase being 26.1% (range 23.2%-31.2%).

It is interesting to note that the dressed:boned ratio was 1:1.37 in 1977 but was 1:1.31 in 1976. This indicates a rather stable market because, with a variety of products available to meet market demands the industry could easily shift. This can be seen in the increased size of individual processed fish during 1977. There was an ounce increase in fish size (except with the boned and breaded item which remained the same) during 1977 as compared to 1976.

In summary, the rainbow trout industry in Idaho has apparently kept pace with the national inflationary rate and, in some instances, may have surpassed it. It is interesting to note, however, that the dressed product is more rewarding financially than is the boned product. For example, if the entire annual production were sold as the dressed product, a potential gross value would be 24.24 million dollars as compared to selling the entire annual production as the boned product which would have a gross potential of 23.71 million dollars. The reason for the difference, even though the boned product sells for 28 cents per pound more than the dressed, is the fact that with the dressed product there is a 20% dress loss as compared with a 33% dress loss for the boned product. Also, the labor costs involved in the boned product are more than in the dressed product. Just how much more the labor costs were was not determined in this survey.

The channel catfish production in Idaho during 1977 was 440,000 pounds (Table 4). An increase of 140,000 pounds over the 1976 production (Table 5). Currently, there is only one channel catfish raising facility in the state. In 1977, the processed product picture changed markedly over that seen in 1976. The reason stated for this was the greater market demand for a variety of products.

Fish Feed Production

This is the first year for collection of this data. According to the information received, the average price received per pound was \$0.21. The percentage breakdown of the production by pellet size was not accomplished because of the complexity of sizes.

The total feed production in Idaho during 1977 was reported to be 15,000 tons (30 million pounds) of which a substantial amount was shipped out of state to public and private aquaculture facilities. In addition, there were several thousand tons of fish feed produced out of state but fed to fish in the state.

Table 1. PL 88-309 Survey of Idaho Food Fish Production in 1975

Round weight of fish produced: 18,371,890 lbs. (Live fish sold: 1,341,800 lbs)

Processed weight of fish produced as:

dressed:	<u>11,717,190</u>	lbs	average weight:	<u>9</u>	oz.
boned:	<u>4,649,550</u>	lbs	average weight:	<u>10</u>	oz.
boned and breaded:	<u>36,875</u>	lbs	average weight:	<u>7</u>	oz.
fillets:	<u>590,400</u>	lbs	average weight:	<u>5</u>	oz.
specialty items:	<u>36,075</u>	lbs	average weight:	<u>8</u>	oz.

Average price per pound of fish sold as:

round	\$	<u>0.80</u>
dressed	\$	<u>1.15</u>
boned	\$	<u>1.45</u>
boned and breaded	\$	<u>1.40</u>
fillets	\$	<u>1.86</u>
specialty items	\$	<u>1.80</u>

Table 2.

P.L. 88-309 Survey of 1976 Production of Food Fish in Idaho

Total round weight rainbow trout produced: 19,754,121 pounds

Average price per pound paid to trout producers by processors: \$0.63

Processed as:	% total production	Pounds	Processing weight loss (%)	Processed weight (lbs)	Av. individual processed weight (oz.)	Av. price per pound FOB Buhl (\$)	Gross sales (\$)
Dressed	42	8,296,731	20	6,637,385	8	1.35	8,960,470
Boned	55	10,864,766	33	7,279,393	8	1.61	11,719,822
Boned and Breaded	0.3	59,262	33	39,706	7	1.55	61,544
Filletts	0.7	138,279	46	74,671	5	1.90	141,875
Stuffed	0.5	98,771	33	66,176	8	2.05	135,661
Specialty items (round fresh and live)	1.5	296,312	0	296,312	12	1.00	196,312

Table 3. P.L. 88-309 survey of 1977 production of rainbow trout in Idaho.

Total round weight produced: 19,549,889 pounds

Average price per pound paid to trout producers by processors: \$ 0.68

Processed as:	% total production	Pounds processed	Processing weight loss (%)	Average fish weight processed (oz.)	Price/lb F.O.B. plant (\$)	Gross sales (\$)
Fresh, iced	2.47	482,882	0	12	1.19	574,630
Dressed, frozen	26.52	5,184,631	20	8	1.54	6,387,465
Dressed, iced	11.92	2,330,347	20	10	1.55	2,889,630
Boned	52.84	10,330,161	33	9	1.81	12,527,386
Boned and breaded	0.86	168,129	33	7	1.68	189,246
Stuffed	3.82	746,806	5*	8	2.48	1,759,474
Fillets	1.57	306,933	46	5	2.28	377,896
Totals		19,549,889				24,705,727

* Stuffing replaces 85% processing (eviscerating and boning) loss.

Table 4.

P.L. 88-309 survey of 1977 production of catfish in Idaho.

Total round weight produced: 440,000 pounds

Average price per pound paid to catfish producers by processors: \$ 0.65

Processed as:	% total production	Pounds processed	Processing weight loss (%)	Price/lb F.O.B. plant (\$)	Gross sales (\$)
Dressed, pan ready	10.0	44,000	35	1.80	51,480
Dressed	30.0	132,000	28	1.05	99,792
Dressed, specialty	20.0	88,000	30	1.35	83,160
Fillets	40.0	176,000	50	2.55	224,400
Totals		440,000			458,832

Table 3: P.L. 88-309 Survey of 1976 Production of Food Fish in Idaho

Total round weight channel catfish produced: 300,000 pounds

Average price per pound paid to catfish producers by processors: \$0.65

Processed as:	% total production	Pounds	Processing weight loss (%)	Processed weight (lbs)	Av. individual processed weight (oz.)	Av. price per pound FOB Buhl (\$)	Gross sales (\$)
Dressed	100	300,000	28	216,000	20-24	1.45	313,200

FUTURE PROSPECTS

While collecting the 1977 food fish production data, it was noted that the number of trout production facilities in southern Idaho was increasing significantly. In 1977 there were 76 licensed fish farms in Idaho. In 1978 the number increased to 109. One operation increased its production from a few hundred thousand pounds in 1976 to well over a million pounds (estimated) in 1978. The five processing plants have all increased their processing capacity to accommodate the increased production. Some have increased their physical plants and some have gone to double work shifts. This activity suggests that the food fish industry in Idaho is going to make, in all likelihood, the most significant product increase in its history.

Appendix I

Commercial Food Fish Processors and Fish Feed Plants in Idaho

	<u>Processing</u>	<u>Feed Mfg.</u>
Clear Springs Trout Co. Route 4, Box 548 Buhl, Idaho 83316	X	
Thousand Springs Trout Farms, Inc. Route 4, Box 232 Buhl, Idaho 83316	X	X
Idaho Trout Processors, Inc. 1306 Vista Avenue Boise, Idaho 83705	X	
Blue Lakes Trout Farm, Inc. P.O. Box 1237 Twin Falls, Idaho 83301	X	
Fish Breeders of Idaho 2914 Alta Vista Drive Twin Falls, Idaho 83301	X	
Rangen's, Inc. Buhl, Idaho 83316		X
Hill Milling Co. Terreton, Idaho 83450		X
IdaBest Twin Falls, Idaho 83301		X

TEACHING/RESEARCH/SERVICE
Fishery Resources
(208) 885-6336



May 31, 1978

Dear:

In one of the trade magazines a few years back, an article appeared describing the Idaho food fish industry - particularly, the rainbow trout industry. One of the main comments made by the trout farmers interviewed was that applied research on problems encountered in raising trout for human consumption was lacking. The theme was that our state universities do not really care about our problems when money for research on state and federally raised fish is so easy to come by. To a large degree, this theme is correct. I guess that is largely the fault of several of us here at the University of Idaho. We have not done the best in keeping the food fish industry of Idaho current on our aquaculture-related research. And, it is also true that funds from state and federal agencies are easier to acquire than are commercial funds. However, in 1964 the 88th Congress enacted The Commercial Fisheries Research and Development Act of 1964 (Public Law 88-309).

P.L. 88-309 (an abridged copy is attached) authorizes the Secretary of Interior to cooperate with the 50 states and Possessions in carrying out research and development of the Nation's commercial fisheries. This responsibility was transferred to the Secretary of Commerce a few years ago. Projects eligible for funding include research, development, construction, and coordination. Cost-sharing projects are funded at either a 50% or 75% level of federal participation, whereas projects to alleviate resource disaster and for the establishment a new commercial fisheries may be financed at the 100% level with Federal funds. The Act would have expired June 30, 1973; however, it was extended by P.L. 92-590 for an additional 5 years (until 30 June 1978).

The annual apportionments of Federal funds are based upon the average annual production of fish and fish products over a three year period. Heretofore, Idaho has been eligible for only bare minimum of the apportionment - or \$17,050. In the past these funds have been used by the Idaho Department of Fish and Game for studies to enhance the salmon and steelhead runs in Idaho. However, across the nation, funds are being used by state and commercial agencies for resolving problems in fish culture, fish disease, hatchery design, marketing, and so on. There are no restrictions about these funds being used only by a state agency. Many of the current projects are being conducted by university staff and some by private corporations.

The University of Idaho is an Equal Opportunity/Affirmative Action Employer and Educational Institution.

May 31, 1978

I have estimated from what data I have collected on commercial food fish production during the past four years that Idaho would be eligible for nearly \$40,000 in Federal funding for applied research on commercial aquaculture problems. However, to establish the eligibility, the data base must be recorded. That is where you, the food fish processor, comes in. Your input is the only way the data base can be substantiated.

Therefore, I would request that you look over the enclosed form. I will be visiting you during June to answer any questions and so forth. As you can see, there are no identifying numbers, etc. on the form. All the data collected from the processors will be compiled onto one (1) copy of the form which will be sent to John Bishop of NMFS in Seattle. After I prepare the form for him, the copies of the individual processor's data will be destroyed.

Best regards,

George W. Klontz
Professor
Fishery Resources

GWK/bs

Enc.

Commercial Fisheries Research and Development Act

Public Law 88-309
88th Congress, S. 627
May 20, 1964

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Commercial Fisheries Research and Development Act of 1964".

Sec. 2. As used in this Act, the term--

"Commercial fisheries" means any organization, individual, or group of organizations or individuals engaged in the harvesting, catching, processing, distribution, or sale of fish, shellfish, or fish products.

"Fiscal year" means the period beginning July 1 and ending June 30. "Obligated" means the written approval by the Secretary of the Interior of a project submitted by the State agency pursuant to this Act.

"Project" means the program of research and development of the commercial fishery resources, including the construction of facilities by the States for the purposes of carrying out the provisions of this Act.

"Raw fish" means aquatic plants and animals.

"State" means the several States of the United States, the Commonwealth of Puerto Rico, American Samoa, the Virgin Islands, and Guam.

"State agency" means any department, agency, commission, or official of a State authorized under its laws to regulate commercial fisheries.

Sec. 3. (a) The purpose of this Act is to authorize the Secretary of the interior to cooperate with the States through their respective State agencies in carrying out projects designed for the research and development of the commercial fisheries resources of the Nation. Federal funds made available under this Act will be used to supplement, and, to the extent practicable, increase the amounts of State funds that would be made available for commercial fisheries research and development in the absence of these Federal funds.

(b) (1) Nothing in this Act prevents any two or more States from acting jointly in carrying out a project.

(2) The Congress consents to any compact or agreement between any two or more States for the purpose of carrying out a project. The right to alter, amend, or repeal this subsection or the consent

Sec. 4. (a) There is authorized to be appropriated to the Secretary of the Interior for the next fiscal year beginning after the date of enactment of this Act, and for the four succeeding fiscal years, \$5,000,000 in each year for apportionment to the States to carry out the purposes of this Act.

(b) In addition to the amounts authorized in subsection (a) of this section there is authorized to be appropriated for the next fiscal year beginning after the date of enactment of this Act, and for the succeeding fiscal year, \$400,000 in each such year, and for the next three succeeding fiscal years, \$650,000 in each such year, which shall be made available to the States in such amounts as the Secretary may determine appropriate for the purposes of this Act: Provided, That the Secretary shall give a preference to those States in which he determines there is a commercial fishery failure due to a resource disaster arising from natural or undetermined causes, and any sums made available under this subsection may be used either by the States or directly by the Secretary in cooperation with the States for any purpose that the Secretary determines is appropriate to restore the fishery affected by such failure or to prevent a similar failure in the future: Provided further, That the funds authorized to be appropriated under this subsection shall not be available to the Secretary for use as grants for chartering fishing vessels. Amounts appropriated pursuant to this subsection shall remain available until expended.

(c) In addition to the funds authorized in subsection (a) and (b), there is authorized to be appropriated \$100,000 for the fiscal year beginning after the date of enactment of this Act and for each succeeding fiscal year during the term of this Act, which shall be made available to the States in such amounts as the Secretary may determine for developing a new commercial fishery therein.

Sec. 5. (a) Funds appropriated pursuant to section 4(a) shall be apportioned among the States, by the Secretary, on July 1 of each year or as soon as practicable thereafter, on a basis determined by the ratio which the average of the value of raw fish harvested by domestic commercial fishermen and received within the State (regard-less where caught) for the three most recent calendar years for which data satisfactory to the Secretary are available plus the average of the value to the manufacturer of manufactured and processed fishery merchandise manufactured within each State for the three most recent calendar years for which data satisfactory to the Secretary are available, bears to the total average value of all raw fish harvested by domestic commercial fishermen and received within the States (regardless where caught) and fishery merchandise manufactured and processed within the States for the three most recent calendar years for which data satisfactory to the Secretary are available.

However, no State may receive an apportionment for any fiscal year of less than one-half of 1 per centum of funds or more than 6 per centum of the funds.

(b) So much of any apportionment for any fiscal year which is not obligated during any year remains available for obligation to carry out the purposes of this Act until the close of the succeeding fiscal year, and if unobligated at the end of that year, the sum is returned to the Treasury of the United States.

Sec. 6. (a) Any State desiring to avail itself of the benefits of this Act may, through its State agency, submit to the Secretary full plans, specifications, and estimates of any project proposed for that State. Items included for engineering, planning, inspection, and unforeseen contingencies in connection with any works to be constructed shall not exceed 10 per centum of the cost of the works, and shall be paid by the State as a part of its contribution to the total cost of the works. If the Secretary approves the plans, specifications, and estimates as being consistent with the purposes of this Act and in accordance with standards to be established by him, he shall notify the State agency. No part of any moneys appropriated pursuant to this Act may be obligated with respect to any project until the plans, specifications, and estimates have been submitted to and approved by the Secretary. The expenditure of funds authorized by this Act shall be applied only to approved projects, and if otherwise applied they shall be replaced by the State before it may participate in any further assistance under this Act.

(b) If the Secretary approves the plans, specifications, and estimates for the project, he shall promptly notify the State agency and immediately set aside so much of the appropriation made available under section 4(a) of this Act as represents the Federal share payable under this Act on account of the project, which sum shall not exceed 75 per centum of the total estimated cost of the project.

CLASSIFICATION OF P.L. 88-309 FUNDS

BY ACTIVITY AND AUTHORIZATION

(FY 1966 - FY 1975)

Program activities cover various fields, including a broad category of research, construction, development, coordination, and resource disasters. Fifty-three percent of the Federal funds are used for research in such areas as fish disease and parasite control, aquaculture, the environment, basic biology, and life history. More than 16 percent is for construction of research vessels and laboratories, fish hatcheries, fish screens and other fish facilities; nearly 18 percent for exploratory fishing, gear development, fish products, economics, and other development projects; 7 percent for coordination and planning; and almost 6 percent for resource disasters.

Activity	(\$1,000)
Construction	<u>2,786</u>
Fish culture facilities	112
Fish landing facilities	322
Fish screens and fishways	0
Stream improvement	21
Hatcheries	144
Laboratories	1,744
Research Vessels	443
Coordination	<u>1,896</u>
Development	<u>9,340</u>
Economics	100
Exploratory fishing	1,686
Extension	1,307
Fishery products	1,304
Marketing	3,397
Operation and maintenance	143
Statistics	1,404
Planning	1,644
Research	<u>23,621</u>
Aquaculture	2,482
Disease and parasites	1,302
Environment	2,891
Finfish	8,607
Marine worms	257
Shellfish	8,082
Resource disaster	<u>3,449</u>
TOTAL	<u>42,736</u>

APPORTIONMENT OF P.L. 88-309 FEDERAL FUNDS BY
STATE AND AUTHORIZATION (FY-1975)

Warm Water Fisheries

Alabama	\$	326,164
Arkansas		25,070
Louisiana		479,600
Mississippi		249,864
Texas		<u>204,600</u>
TOTAL		1,285,298

Cold Water Fisheries

Alaska	\$	204,600
California		204,600
Colorado		17,050
Idaho		17,050
Montana		17,050
Oregon		117,621
Washington		<u>141,409</u>
TOTAL		719,380

GRAND TOTAL 2,004,678

Round weight of fish processed: _____ lbs.

Processed fish data:

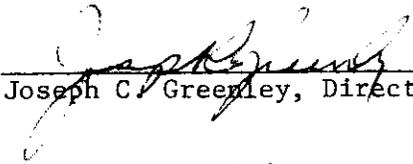
	% of round weight processed	av. individual weight (oz.)	av. \$ per lb FOB plant
fresh - iced			
dressed - frozen			
dressed - iced			
boned			
boned and breaded			
stuffed			
fillets			
misc. specialty items			

Submitted by:

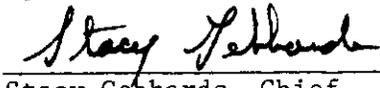
George W. Klontz
Professor, Fishery Resources
University of Idaho

Approved by:

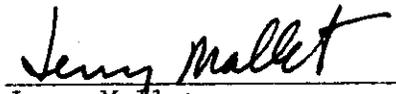
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Jerry Mallet
Fishery Research Supervisor
Bureau of Fisheries